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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/967,740	10/18/2004	Frank Y. Xu	P156-32-04	1077
25108	7590	05/31/2007		
MOLECULAR IMPRINTS PO BOX 81536 AUSTIN, TX 78708-1536			EXAMINER JOHNSON, CONNIE P	
			ART UNIT 1752	PAPER NUMBER
			MAIL DATE 05/31/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/967,740

Applicant(s)

XU ET AL.

Examiner

Connie P. Johnson

Art Unit

1752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 8-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Response to Amendment***

1. The remarks and amendment filed 3/1/2007 have been entered and fully considered.
2. Claims 8-18 are presented.
3. The 103(a) rejection over Albano in view of Gebhardt is withdrawn.

***Response to Arguments***

4. Applicant's arguments, see pages 4-9, filed 3/1/2007, with respect to the rejection(s) of claim(s) 8-18 under 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made herein.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albano et al., U.S. Patent Publication No. 2003/0054115 A1 in view of Abe et al., U.S. Patent No. 7,138,362 B2 and further in view of Li et al., U.S. Patent No. 7,141,188 B2.

Albano teaches an organic, UV curable, low dielectric material. The material may comprise hydrogen silesquioxane (HSQ) dielectric materials, methylsilesquioxane (MSQ) dielectric materials, other organic dielectric materials and combinations thereof (page 2, ([0021])). By definition in the Applicant's specification (page 13), the aforementioned compounds are organic modified silicates. The HSQ resin may have a small number of silicon atoms encompassing 10% by weight of silicon (page 3, [0031]). In addition, the HSQ resin may have a molecular weight of 1200 to 100,000 (page 3, [0034]). Albano also teaches a thermally curable organic compound (siloxane resin) containing alkyl groups. The alkyl groups of the organic compound are thermally decomposed to create porosity in the resin coating (page 5, ([0060])). Solvents are also used to form a resin coating on the substrate. Albano does not teach the use of fluorosurfactants nor polycaprolactone as a decomposing organic compound in the coating resin.

However, Abe teaches a composition comprising a fluorinated surfactant that is used as a wash solution for low-K films (col. 2, line 58). The fluorinated surfactant acts as a dispersing agent in the composition to increase surface wettability. Therefore, it would have been obvious to one of ordinary skill in the art to use a fluorinated surfactant in the composition of Albano teaches dispersing agents in the composition to dissolve the resin compositions. Abe nor Albano teach that the viscosity of the composition is less than 200,000 cps. However, it would have been obvious to one of ordinary skill in the art that the viscosity would be in the range of less than 200,000 cps because the components of the composition are present in the same amounts as claimed.

Further, Li teaches an organic composition comprising a dielectric material and a polycaprolactone (see abstract). Li also teaches silicon compounds, which may act as a release agent in the composition (col. 49, line 28). The composition may also comprise surfactants. Albano and Li are both concerned with the same fields of endeavor. While Albano teaches porous material, Li teaches a dielectric material comprising a porogen. Therefore, it would have been obvious to one of ordinary skill in the art to use the polycaprolactone of Li in the Albano composition because porogens such as polycaprolactone form uniformly dispersed pores without affecting the dielectric material (col. 54, lines 10-12).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Connie P. Johnson whose telephone number is 571-272-7758. The examiner can normally be reached on 7:30am-4:00pm Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Connie P. Johnson  
Examiner  
Art Unit 1752

  
DOUGLAS MCGINTY  
SUPERVISORY PATENT EXAMINER

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